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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,553	04/05/2001	Benjamin Mbouombouo	99-253 66254 (6653)	6487

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LSI LOGIC CORPORATION
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MILPITAS, CA 95035

EXAMINER

KIK, PHALLAKA

ART UNIT	PAPER NUMBER
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2825

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/828,553

Applicant(s)

MBOUOMBOUO ET AL.

Examiner

Phallaka Kik

Art Unit

2825

-- Th MAILING DATE of this communication app ars on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner. *draftsperson*
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings filed on 4/5/2001 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Claim Objections

2. **Claims 4,7-9,13,14,16-19** are objected to because of the following informalities:

As per **claim 4**, "the" (line 2) should be deleted for proper antecedent basis.

As per **claim 7**, the claim should depend on claim 6 to provide antecedent basis for "said requesting" (line 2);

also "; and" (line 4) should be replaced with --.--.

As per **claim 8**, the claim should depend on claim 7 to provide proper antecedent basis for "said requesting of at least one type of buffer cell" (line 2);
also, "a" (line 4) should be --an-- for proper grammar.

As per **claim 9**, the claim should depend on claim 7 to provide proper antecedent basis for "said at least one buffer location, said at least one type of buffer cell" (lines 3-5);

also, "said quantity" (line 5) should be --a quantity-- to provide for proper antecedent basis.

As per **claims 7,8,9**, the claims are also objected to for incorporating the above errors into the respective claims by claim dependency.

As per **claim 13**, "." (extra period, line 3) should be deleted.

As per **claim 14**, "the" (line 2) should be deleted to provide for proper antecedent basis.

As per **claim 16**, "the net" (line 8) should be --a net-- to provide for proper antecedent basis.

As per **claim 17**, the claim should depend on claim 16 to provide for proper antecedent basis for "the buffer insertion system" (line 1).

As per **claims 17-18**, the claims are also objected to for incorporating the above errors into the respective claims by claim dependency.

As per **claim 19**, "the database" (line 19) should be --a database-- to provide for proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-19** are rejected under 35 U.S.C. 102(e) as being anticipated by **Petranovic et al.** (US Patent No. 6,546,541).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per **claims 1,10,19**, all of the elements of the claims are illustrated in Fig. 2, wherein information about the driving cell corresponds to the information found in the current netlist 201 (col. 7, lines 61-65) and information about interconnect corresponds to the information found in the current placement data 201 (col. 5, lines 1-14, 22-44), from which the buffer cell information (i.e., buffers or buffer tree--col. 8, lines 33-43) are determined at step 204 (see col. 8, lines 33-43) which accesses the technology library lookup table (which is illustrated in col. 7, lines 29-31) at 201, to which the layout/placement tool optimizes at step 205, wherein the computer readable medium is part of the computer-implemented method/apparatus of **Petranovic et al.** as described in col. 3, lines 20-36, and the cpu and memory are inherently part of the computer-implemented method/apparatus of **Petranovic et al.**, as is well known in the art of computer-aided design.

As per **claims 2,12**, the net length of interconnect being received is also described in col. 5, lines 1-14, from the re-synthesis tool uses (col. 5, lines 20-44).

As per **claims 3-5,13-15**, the interconnect capacitance and driving input ramp time are also described in col. 6, line 52 to col. 7, line 65 (see also col. 8, lines 43-67).

As per **claims 6-9**, the comparison of net lengths and requesting of types, location, and quantity of buffer cells are also described in col. 8, line 43 to col. 9, line 7.

As per **claim 11**, the empirically establishing buffer cell information are also discussed in col. 6, line 22 to col. 7, line 65, for which the buffer/buffer tree selection as described in col. 8, lines 33-42 based upon.

As per **claims 16-18**, all of the elements of the claims are discussed in the rejection of claims 1,10, 2,12, and 6-9 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is herein requested to consider them carefully in response to this Office Action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 703-306-3039. The examiner can normally be reached on Flexitime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 703-308-1323. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Any response to this action should be mailed to:

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

703-872-9318 (for Before-Final) and 703-872-9319 (for After-Final) for
formal communications intended for entry,

Or:

(703) 746-4111 (for informal or draft communications, please label
"PROPOSED" or "DRAFT" and let the examiner know prior to faxing)
Hand-delivered responses should be brought to Crystal Plaza 4, 2201 South
Clark Place, Arlington, VA 22202, Fourth Floor (Receptionist).

7. Applicant should note that effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address for transitioning to the new Office location in Alexandria, VA, wherein correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must now be addressed to:

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

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PK 
September 24, 2003



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